

WHAT IS CLAIMED IS:

1. A method of fabricating a memory card, comprising the steps of:
 - a) providing a leadframe having:
 - a dambar having opposed top and bottom dambar surfaces; and
 - a plurality of contacts defining opposed top and bottom contact surfaces, each of the contacts being attached to the dambar by at least one tie bar which defines opposed top and bottom tie bar surfaces;
 - b) applying a layer of tape to the leadframe such that the tape covers the top contact surfaces of the contacts, the top tie bar surfaces of the tie bars, and at least a portion of the top dambar surface of the dambar;
 - c) removing the tie bars from the leadframe;
 - d) electrically connecting at least one semiconductor die to the leadframe;and
 - e) forming a body on the leadframe such that the semiconductor die and the tape are covered by the body and at least portions of the bottom contact surfaces of the contacts are exposed in an exterior surface thereof.
2. The method of Claim 1 wherein step (c) comprises removing the tie bars from the leadframe through a punching operation which punches through at least a portion of the tape.
3. The method of Claim 1 wherein:
 - step (a) comprises providing a leadframe having a die pad which defines opposed top and bottom die pad surfaces and is attached to the dambar;
 - step (d) comprises attaching the semiconductor die to the top die pad surface of the die pad; and
 - step (e) comprises forming the body to at least partially cover the die pad.
4. The method of Claim 3 wherein:
 - step (a) comprises providing a leadframe having a plurality of conductive traces which each define opposed top and bottom trace surfaces and extend from respective ones of the contacts toward the die pad;

step (b) comprises applying the tape to the leadframe such that the tape extends over at least a portion of the top trace surface of each of the conductive traces;

step (d) comprises electrically connecting the semiconductor die to at least one of the conductive traces; and

step (e) comprises forming the body such that the conductive traces are covered thereby.

5. The method of Claim 1 wherein:

step (a) comprises providing a leadframe wherein the bottom contact surfaces of contacts are each generally planar; and

step (e) comprises forming the body such that the exterior surface thereof is generally planar and the bottom contact surfaces of the contacts are exposed in and substantially flush with the exterior surface.

6. The method of Claim 1, further comprising the step of:

f) removing the dambar from the leadframe.

7. A method of fabricating a memory card, comprising the steps of:

a) providing a leadframe having:

a dambar having opposed top and bottom dambar surfaces; and

a plurality of contacts defining opposed top and bottom contact surfaces, each of the contacts being attached to the dambar by at least one tie bar which defines opposed top and bottom tie bar surfaces;

b) applying a layer of tape to the leadframe such that the tape covers the bottom contact surfaces of the contacts, the bottom tie bar surfaces of the tie bars, and at least a portion of the bottom dambar surface of the dambar;

c) removing the tie bars from the leadframe;

d) electrically connecting at least one semiconductor die to the leadframe;

and

e) forming a body on the leadframe such that the semiconductor die is covered by the body and at least portions of the bottom contact surfaces of the contacts are exposed in an exterior surface thereof.

8. The method of Claim 7 further comprising the steps of:
 - f) removing the tape from the bottom surfaces of the contacts and the exterior surface of the body; and
 - g) removing the dambar from the leadframe.
9. The method of Claim 7 wherein step (c) comprises removing the tie bars from the leadframe through a punching operation which punches through at least a portion of the tape.
10. The method of Claim 7 wherein:
 - step (a) comprises providing a leadframe having a die pad which defines opposed top and bottom die pad surfaces and is attached to the dambar; and
 - step (d) comprises attaching the semiconductor die to the top die pad surface of the die pad; and
 - step (e) comprises forming the body to at least partially cover the die pad.
11. The method of Claim 10 wherein:
 - step (a) comprises providing a leadframe having a plurality of conductive traces which each define opposed top and bottom trace surfaces and extend from respective ones of the contacts toward the die pad;
 - step (b) comprises applying the tape to the leadframe such that the tape extends over at least a portion of the bottom trace surface of each of the conductive traces;
 - step (d) comprises electrically connecting the semiconductor die to at least one of the conductive traces; and
 - step (e) comprises forming the body such that the conductive traces are covered thereby.
12. The method of Claim 11 wherein step (b) comprises applying the tape to the leadframe such that the tape extends over the bottom trace surface of each of the conductive traces and the bottom die pad surface of the die pad.
13. The method of Claim 7 wherein:
 - step (a) comprises providing a leadframe wherein the bottom surfaces of contacts are each generally planar; and

step (e) comprises forming the body such that the exterior surface thereof is generally planar and the bottom surfaces of the contacts are exposed in and substantially flush with the exterior surface.

14. A method of fabricating a memory card, comprising the steps of:

a) providing a leadframe having:

a dambar having opposed top and bottom dambar surfaces; and

a plurality of contacts defining opposed top and bottom contact surfaces, each of the contacts being attached to the dambar by at least one tie bar which defines opposed top and bottom tie bar surfaces;

b) applying top and bottom tape layers to the leadframe such that the top tape layer covers the top contact surfaces of the contacts, the top tie bar surfaces of the tie bars, and at least a portion of the top dambar surface of the dambar, and the bottom tape layer covers the bottom contact surfaces of the contacts, the bottom tie bar surfaces of the tie bars, and at least a portion of the bottom dambar surface of the dambar;

c) removing the tie bars from the leadframe;

d) electrically connecting at least one semiconductor die to the leadframe;

and

e) forming a body on the leadframe such that the semiconductor die and the top tape layer are covered by the body and the bottom contact surfaces of the contacts are exposed in an exterior surface thereof.

15. The method of Claim 14 further comprising the steps of:

f) removing the bottom tape layer from the bottom surfaces of the contacts and the exterior surface of the body; and

g) removing the dambar from the leadframe.

16. The method of Claim 14 wherein step (c) comprises removing the tie bars from the leadframe through a punching operation which punches through at least a portion of each of the top and bottom tape layers.

17. The method of Claim 14 wherein:

step (a) comprises providing a leadframe having a die pad which defines opposed top and bottom die pad surfaces and is attached to the dambar; and

step (d) comprises attaching the semiconductor die to the top die pad surface of the die pad; and

step (e) comprises forming the body to at least partially cover the die pad.

18. The method of Claim 17 wherein:

step (a) comprises providing a leadframe having a plurality of conductive traces which each define opposed top and bottom trace surfaces and extend from respective ones of the contacts toward the die pad;

step (b) comprises applying the top tape layer to the leadframe such that the top tape layer extends over at least a portion of the top trace surface of each of the conductive traces, and applying the bottom tape layer to the leadframe such that the bottom tape layer extends over at least a portion of the bottom trace surface of each of the conductive traces;

step (d) comprises electrically connecting the semiconductor die to at least one of the conductive traces; and

step (e) comprises forming the body such that the conductive traces are covered thereby.

19. The method of Claim 14 wherein:

step (a) comprises providing a leadframe wherein the bottom surfaces of contacts are each generally planar; and

step (e) comprises forming the body such that the exterior surface thereof is generally planar and the bottom surfaces of the contacts are exposed in and substantially flush with the exterior surface.

20. The method of Claim 14, further comprising the step of:

f) removing the dambar from the leadframe.

21. A method of fabricating a memory card, comprising the steps of:

a) providing a leadframe having:

a dambar having opposed top and bottom dambar surfaces; and

a plurality of contacts defining opposed top and bottom contact surfaces;

b) applying a layer of tape to the leadframe such that the tape covers the top contact surfaces of the contacts and at least a portion of the top dambar surface of the dambar;

c) forming a lower body section on the leadframe such that the contacts are at least partially encapsulated by the lower body section, and the bottom contact surfaces of the contacts are exposed in a bottom surface of the lower body section;

d) electrically connecting at least one semiconductor die to the leadframe;
and

e) forming an upper body section on the leadframe such that the semiconductor die is captured between and covered by the upper and lower body sections.

22. The method of Claim 21 wherein step (c) comprises forming the lower body section to define a radiused peripheral edge which extends about the bottom surface thereof.

23. The method of Claim 22 wherein step (e) comprises forming the upper body section to define a generally planar top surface and a radiused peripheral edge which extends about the top surface thereof.

24. The method of Claim 21 wherein step (c) comprises downsetting the contacts relative to the dambar prior to forming the upper body section.

25. The method of Claim 24 wherein:

step (a) comprises providing a leadframe wherein each of the contacts includes at least one locking tab protruding therefrom; and

step (c) comprises forming the lower body section such that the at least one locking tab of each of the contacts is at least partially encapsulated by the body.

26. The method of Claim 21, further comprising the step of:

f) removing the dambar from the leadframe.

27. A method of fabricating a memory card, comprising the steps of:

a) providing a leadframe having:

a dambar; and

a plurality of contacts, each of the contacts being attached to the dambar by at least one tie bar;

b) electrically connecting at least one semiconductor die to the leadframe;

c) forming a body on the leadframe such that the semiconductor die is covered by the body, and at least a portion of each of the contacts is exposed in a bottom surface thereof;

d) removing the dambar from the leadframe in a manner facilitating the exposure of distal ends of the tie bars in a common side surface of the body; and

e) forming a contoured surface portion in the side surface of the body in a manner causing the distal ends of the tie bars to be recessed relative to the side surface.

28. The method of Claim 27 wherein step (e) is completed through a milling operation.